REMARKS

Claims 9, 11, 19 and 20 are all the claims pending in the application.

Rejection under 35 U.S.C. § 112, first paragraph

At page 2 of the Office Action, the Examiner rejected claims 9, 11, 19, and 20 on the basis that written description is lacking for a virtual circuit that corresponds to the Internet service provider and for the interconnection between several claimed components.

Applicant respectfully traverses.

Applicant reminds the Examiner that any preliminary amendment that is present on the filing date of an application filed under 37 CFR 1.53(b) is part of the original disclosure [MPEP 201.06(c).XII]. Both the present application and the present preliminary amendment were filed on September 25, 2003 and therefore the Examiner has the initial burden of presenting evidence or reasons why a person skilled in the art would not recognize that the written description of the invention provides support of the claims [MPEP 2163.II.A].

Regarding claims 9 and 11, the Examiner argues that the virtual circuit that corresponds to the Internet service provider is not described in the original claims or the specification. The Examiner questions, regarding claim 19, how the first and second means are interconnected and how they are interconnected to the call processor and, regarding claim 20, how the processor, controller, and call processor are interconnected.

The Examiner sets forward these rejections without offering evidence or reasons why a person skilled in the art would not recognize that the written description of the invention provides support for the claims.

Accordingly, Applicant respectfully requests withdrawal of the rejections under 35 U.S.C. § 112, first paragraph.

Solely to advance prosecution of this application, Applicant offers the following comments:

Referring to claims 9 and 11, the specification identifies in full, clear, concise, and exact terms that the subscriber unit comprises a virtual circuit that corresponds to the Internet service provider. The specification details support at [0068] - [0077] and [0099]. Particularly, "[c]all processor CP allocates a virtual circuit to each call to an Internet service provider. Thus each Internet frame is transmitted in a virtual circuit corresponding to an Internet service provider" ([0068]). Claim 9 recites "an Internet router, wherein…calls pass through the Internet router in a virtual circuit that corresponds to the Internet service provider." Claim 11 recites "a plurality of modems, wherein…calls…pass through the modems in a virtual circuit that corresponds to the Internet service provider."

Applicant further submits that one of the aspects of the claimed subscriber unit is "to concentrate Internet frames and transmit them in a virtual circuit routing them to a data switching center" [0016]. Claim 9 recites "an Internet router, wherein…calls…pass through the Internet router in a virtual circuit." Claim 11 recites "a plurality of modems, wherein…calls…pass through the modems in a virtual circuit."

Applicant submits that the claimed virtual circuit which forms the basis for the Examiner's rejection of claims 9 and 11 is not new matter and is clearly written in the specification.

Referring to claims 19 and 20, the specification identifies in full, clear, concise, and exact terms how the several claimed components are interconnected. The specification details the components of the claimed subscriber units and the interconnectedness of such components throughout the specification, for example, at Fig. 1 and [0035]-[0050] as well as at Fig. 4 and [0080]-[0092].

Applicant respectfully requests withdrawal of the rejections under 35 U.S.C. § 112, first paragraph.

Objection to the Drawings under 37 C.F.R. § 1.83(a)

At page 2 of the Office Action, the Examiner objected to the drawings for not showing every feature of the invention specified in the claims. The Examiner indicates that the objection is made under 37 C.F.R. § 1.83(a). This section directs applicants to illustrate in the form of a graphical drawing symbol or a labeled representation (e.g. a labeled rectangular box) those features where detailed illustration is not essential for a proper understanding.

Referring to claims 9, 11, 19, and 20, Applicant respectfully submits that the present illustrations feature a virtual circuit in a manner under 37 C.F.R. § 1.81 that provides the necessary understanding of the subject matter sought to be patented. Applicant further submits

that, in contrast, a drawing in the form of a graphical drawing symbol or a labeled representation (e.g. a labeled rectangular box) would hinder understanding necessary to the subject matter.

Specifically, by virtue of its definition as a "virtual," the claimed virtual circuit is not a singular, dedicated circuit; this virtuality is illustrated in the Figures. Such a virtual circuit routes Internet frames to a data switching center ([0014]-[0016]), and are allocated by a call processor ([0068]). A virtual circuit may even be temporary ([0072]) or semi-permanent ([0073]). Applicant posits that the existing Figures adequately represent the claimed features and that modifying the drawings to conform to 37 C.F.R. § 1.83(a) as required by the Examiner would obscure a necessary understanding of the subject matter.

In response to the Examiner's comment on page 4 of the Office Action that "a drawing is required for each independent claim which shows all of the claimed limitations," Applicant directs the Examiner's attention to MPEP 2161.01:

> It should be recognized that sufficiency of disclosure issues in computer cases necessarily will require an inquiry into both the sufficiency of the disclose hardware as well as the disclosed software due to the interrelationship and interdependence of computer hardware and software.

Accordingly, Applicant submits that in view of the interrelationship and interdependence of the claimed virtual circuit with the hardware disclosed, the present Figures provide the necessary understanding of the subject matter sought to be patented.

Referring to the claimed controller, such a controller is illustrated by but not limited to the HDLC controller as featured in Fig. 2.

Referring to the first means for concentrating, such a first means is illustrated by but not limited to first means 4 as featured in Fig. 2 and disclosed in original claims 1, 2, 3, and 5.

Further, in the comments on page 4 of the Office Action, the Examiner does not accept that the HDLC processor may be considered as a first means but makes no objection to a subscriber card ([0017]), a subscriber unit ([0019]), a connection matrix ([0042]), or a concentrator ([0078]) being considered as a second means. Applicant submits that at least these components may be considered as a first means.

Referring to the second means for receiving, such a second means is illustrated by but not limited to second means 2, 5, and 6 as featured in Fig. 2 and disclosed in original claim 1.

Further, in the comments on page 4 of the Office Action, the Examiner does not accept that the HDLC processor may be considered as a second means but makes no objection to software in a digital subscriber connection card ([0017]) being considered as a second means. Applicant submits that at least these components may be considered as a second means.

Applicant respectfully requests withdrawal of the objection to the drawings under 37 C.F.R. § 1.83(a).

Claim Objections

At page 3 of the Office Action, the Examiner objected to the usage of "n" in claims 19 and 20 and requested that Applicant define a range of "n" in the claim language. Applicant respectfully submits that the phrase "n x 64 kbit/s" simply describes the type of data links within the scope of the present claims. Applicant submits that this language particularly points out and

distinctly claims the subject matter within the purview of 35 U.S.C. § 112. [c.f. MPEP 608.01(k)]. Applicant notes that objection to claim informalities typically involve correction of spelling errors, inconsistent terminology, etc. rather than matters that affect the scope of the claim.

Applicant respectfully requests withdrawal of the objections to the claims.

Rejection of under 35 U.S.C. § 102

At page 3 and 4 of the Office Action, claims 9 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Dunn (U.S. Patent No. 6,072,793).

The Examiner relies on Dunn as teaching that i) network 7 has an inherent switch matrix, ii) the local area network 25 has an inherent router that connects it to internet service provider ISP1, and iii) the connection to ISP1 is a virtual circuit.

A rejection under 35 U.S.C. § 102 requires that "each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." MPEP § 2131.

With regard to the alleged inherent disclosure of Dunn, Applicant thanks the Examiner for explaining the Examiner's position that routers are inherent in Internet Service Providers and that 1AESS switch inherently has a switching matrix on page 5 of the Office Action. Applicant respectfully requests that the Examiner take proper Official Notice (c.f. MPEP 2144.03) or cite art that corroborates the Examiner's position.

Solely to advance prosecution of this application, Applicant offers the following comments:

With regard to the alleged disclosure of a virtual circuit by Dunn, Applicant respectfully traverses. The connection to ISP1 as disclosed by Dunn does not disclose the claimed virtual circuit.

In the comment on page 5 of the Office Action, the Examiner takes the position that "call setup on a temporary basis and is disconnected is a virtual circuit." Applicant submits that Dunn discloses a network of circuits at column 3, lines 1-17 that is not "virtual" within the meaning of the present claims. Specifically, "when a line that is connected through the ECMDF dials or otherwise give an indication of a request to be connected to an information service provider the switch serving that line sends a message to controller 10 requesting that the line be connected…" (col. 3, lines 6-9). The circuits of Dunn may be connected for a limited time as highlighted by the Examiner, but they are still "connected." Dunn offers no teaching that temporary but connected circuits are "virtual."

With regard to the alleged disclosure of a virtual circuit that corresponds to the Internet service provider by Dunn, Applicant respectfully traverses.

Dunn discloses that a line be "connected to an information service provider." The claimed subscriber unit recites that that the virtual circuit "corresponds to the Internet service provider." Applicant submits that mere connection does not encompass the correspondence between the claimed virtual circuit and the Internet service provider.

With regard to the alleged disclosure of a matrix that can be controlled within the scope of the present claims, Applicant respectfully traverses.

Specifically, Dunn is directed to a main distributing frame that bypasses a local switch (see Fig. 2) rather than to a switch matrix that can be controlled so that calls to an Internet

service provider pass through the Internet router in a virtual circuit that corresponds to the Internet service provider.

Reconsideration and withdrawal of this rejection is respectfully requested.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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